

Note: This is a reference cited in AP 42, *Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

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8/18/1989

To: Ken Meardon - Pacific Environmental Services
From: Alan T. Roy Allied-Signal

Attached for your review is a summary of the information we have been discussing concerning of Moncure, NC Polyester facility. In as much as our comment during the public comment period of this proposal related to an apparent discrepancy in the BID document to the final rule our comment is still valid. I still need additional time to review this and all other data before any other conclusion can be reached.

Please except my apology for the delay in getting this to you.



Alan T. Roy
Manager Pllution Control
Engineered Materials
Sector

TPA

Result of stack sampling November 1987

Miran 1A portable IR

Measured concentrations of di-iso-propyl amine (DIPA) and acetaldehyde from condenser vent.

Because of low flow and high concentrations expected nitrogen was used dilute stream to an acceptable level for equipment. A rotometer was used to measure nitrogen flow. 30 psig nitrogen (10.4 scfm) was used.

Two runs were made one with spray condenser operating normally one with water flow turned off. For the purposes of efficiency calculations, results obtained with the water off was assumed to be equivalent to inlet concentration.

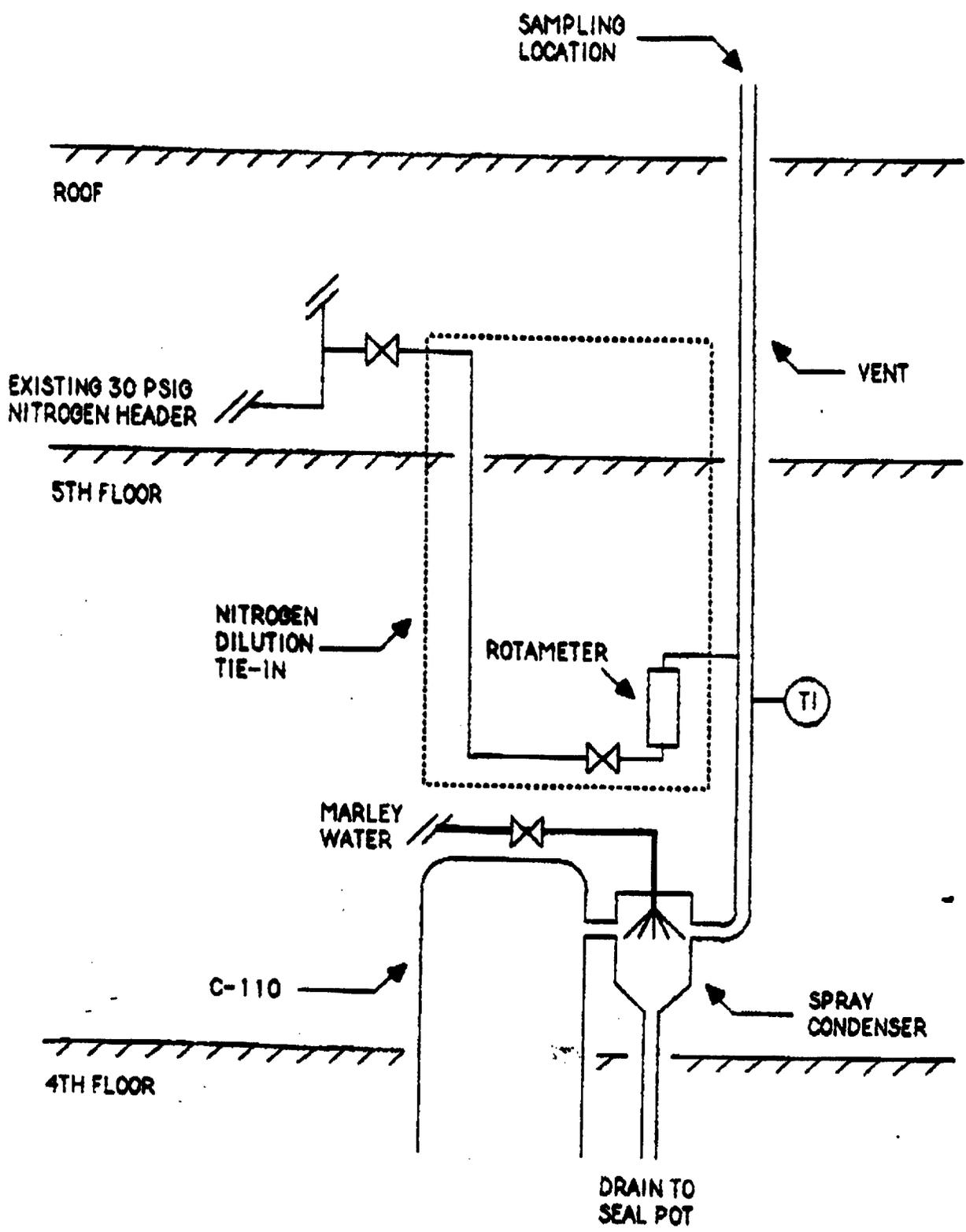
Results of sampling:

SPRAY WATER	FLOW (SCFM)	TOC [LB/1000 LBS]	DIPA:ACETALDEHYDE
ON	4.36	0.0008	2.63
OFF	11.45	0.037	0.26

Concentrations represent maximum reading during sampling

In addition to the above constituents small amounts of ethylene

FIGURE 1 C-110 SAMPLING LOCATION



~~emission~~ Estimate

Based on sampling conducted in 1978, the emissions from esterification of the PET/TPA process were determined to be 0.15 pounds per 1000 pounds of fiber.

The 0.15 lbs / 1000 lbs of fiber consist of the following:

approx. 10% of a catalyst
approx. 90% acetaldehyde.

The parameters of the sampled emission point were:

Diam: 0.33 feet

Temp. 80 - 100°F

Velocity < 10 feet per minute